FEED SYSTEMS | WATERING | ENVIRONMENT

CUMBERLAND

COMPLETE TURKEY SYSTEMS

Cumberland®

Your Source for Innovative Solutions

Turkey Pan Feeding

Turkey Poult Feeder

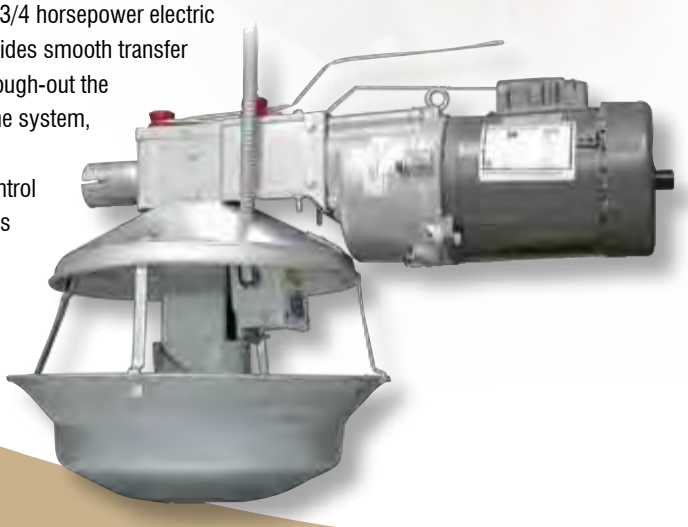
Cumberland's Plastic Turkey Poult Feeder incorporates many features to enhance performance and save you money. This new design helps prohibit bird entrance into the feeder thus reducing shavings within the feed. Additional features include easy feed level adjustment, winchable feed level, and simple feeder pan removal for easy cleaning.

Turkey Feeder Features

- Two piece drop tube for ease of installation or replacement.
- Numerous feed level settings.
- Feed saver lip.
- For use on 1-3/4" (44 mm) tube.
- An inner ring helps prohibit bird entrance into the feeder and in turn reduces shavings within the feed.
- Durable construction design for longevity.
- Winchable feed level.
- Simple removal of the pan from the feeder for easy cleaning.

Control Pan & Drive Unit

Cumberland's high efficiency control pan and drive unit is specially designed for simplicity and reliability, with many years of proven field performance. The 1/2 to 3/4 horsepower electric motor provides smooth transfer of feed through-out the length of the system, while the durable control pan assures consistent feed regulation.



Multi-Setting Winch

Feeder restrictor rings throughout the line are easily raised and lowered to a desired level using an innovative, multiple setting, locking tab winch.

Adult Turkey Feeders

Cumberland's Adult Turkey Feeders represent the most widely accepted turkey feeders in the industry today. This classic design features fully galvanized steel or plastic pans and fully galvanized steel shields. Standard are the feed-saving, deep "V" bottom pans and steep, inward swept lips which reduce billout and return feed to the eating area. The Adult Turkey Feeders also feature a durable, free swinging, steel square drop tube. Swing down pan design for easy cleaning between flocks and adjustable feed level.

For the all-important transition period between brooding and finishing, Cumberland provides an intermediate pan which is interchangeable to provide more versatility to the Cumberland Turkey Feeding Systems.

Adult Turkey Feeders available with Steel Pan and Red or Green Plastic Pan

"Max" Adult Turkey Feeder

The "Max" Turkey Feeder inherits all the same benefits and features that the Cumberland Adult Turkey Feeder has always provided along with these additional features:

- The longer support strap hook design provides a larger area between the shield and pan for easier access to feed.
- The "Max" feeder design allows more feed in the pan.
- Feed line tube height increases two inches, which will improve bird movement throughout the house.
- Cumberland's 4-hook support strap design gives rigid support between the shield and pan.
- New design simplifies feeder assembly.
- Plastic pans available in green or red colors.

Adult Turkey Tubing

Exclusive to the adult turkey feeding industry, Cumberland offers a heavy duty, 2" ribbed tube design. This tube provides added strength compared to the traditional seamless tubing.

Cumberland's Turkey Feeding Systems are Designed and Built Stout for the Rugged Turkey Industry.

Feed Storage and Delivery

Bulk Feed Tanks

Cumberland is a division of GSI Group, LLC, the world's largest manufacturer of corrugated, galvanized steel storage tanks. Therefore, you can be assured every component is made from the finest raw materials available and is manufactured by skilled professionals who have years of experience. Whatever the project, Cumberland has variety of bin sizes to fit your specific needs.

One-of-a-Kind Drip Lip

Cumberland's drip lip water deflection system is a one-of-a-kind, roll-formed bottom sheet edge, which forces water away from the hopper and lower boot area. Complete weather protection without a loss in capacity.

Bin Roof

Cumberland offers your choice of a 30° or 40° bin roof to adapt to any application. Both 30° and 40° roofs feature reinforcing ribs at each roof seam for added strength and rigidity.

Secure Access

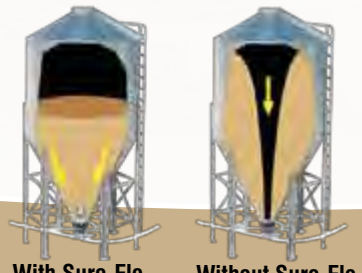
Cumberland feed tanks feature the exclusive, patented "Auto-Lok" ground control access system for opening, closing, and latching the fill cap safely and easily from the ground. Our cap system comes completely factory assembled. The cap itself swings open a full 180°. The cap lies flat, parallel to the ground, completely eliminating interference with, or damage to, the cap from the fill auger.

Sure-Flo

Sure-Flo directs feed down the hopper of the bin rather than down the center creating a first in, first out feed flow.

Sure-Flo

- *Reduces Feed Bridging*
- *First Feed In is First Feed Out*
- *Reduces Feed Separation*
- *Easy to Install*



With Sure-Flo **Without Sure-Flo**

FEED-LINK

The Integra Feed-Link System from Cumberland provides a cost-effective method of monitoring and managing on-site feed inventory either at the site or from a remote location. Please refer to Feed-Link literature (C-33) for more detailed information.

Flex-Flo™ & Boot Unloaders

Designed to fit below the 16" (406mm) plastic and 22" (559 mm) metal boots, Cumberland's standard unloaders are available for 2.2" (55mm), 3" (75mm), 3.5" (90mm), and 5" (125mm). All Cumberland unloaders have an ultra high impact, polypropylene slide-gate above the auger to meter feed or serve as a complete shut off. Also, a convenient inspection/ clean out plate, located on the side, is easily removed with two wing nuts. Most unloaders are available in single or double outlet models, as well as "through" & "twin through" models which can be used where two or more tanks are used in line.

Single unloader shown with optional swing away bottom for 100% clean out.

Clear Boots

Cumberland's clear boot allows producers to verify at a glance while driving by that feed is present in the bin. This heavy walled boot is injected molded from a specially formulated ultraviolet stabilized clear polycarbonate blend to provide years of trouble free service.

Flex-Flo™ Systems	Model 220	Model 300	Model 350	Model 500	Model HR
Tube Outside Diameter	2.25"	3"	3.5"	5"	3.5"
Tube Outside Diameter (mm)	55	75	90	125	90
Tube Corner Radius	5'/10'	5'	5'	6'	5'
Tube Corner Radius (m)	3.05	1.83	1.83	1.83	1.83
Max. Single System Length with Three Elbows	250'	200'	150'	*150'	150'
Max. Single System Length (m) with Three Elbows	76.2	60.96	45.72	*45.72	45.72
Recommended Motor Sizes at Max. Length (Horsepower)	.5	1	1	1.5	1
Capacity (Lbs./Minute at 40 Lbs. per Cu. Ft.)	15	50	100	220	50
Capacity (Kgs./Minute at 640 kg. per Cu. m)	480	1360	2722	5988	1360
Extension Length (Motor End of First System) w/o Elbows	300'	235'	185'	*185'	185'
Extension Length (Motor End of First System) (m) w/o Elbows	92	72	56	*56	56

** For High Moisture Corn Reduce System Length by 50%*

Around the Bend

For moving feed up in the air and around corners, Flex-Flo™ tubing is available in specially formed elbows with increased wall thickness on the inside of the elbow for strength and wear resistance.

30˚ Drop Boot

Straight Boot

Twin Boot

Heavy Duty Boots

Cumberland's 16" (40.6cm) parabolic boot (available in straight boot, 30° boot, and straight twin boot) is made from the very latest in ultra high impact polypropylene for greater flexibility, dependability and durability. Most of our competitors use the older ABS plastic, which is stiff, brittle and prone to fracture, cracking and tear-out, especially where it's attached to steel. ABS is not able to be UV stabilized, unlike Cumberland's polypropelene resin blend which contains special UV light inhibitors, further enhancing it's durability.

Flex-Flo™ Models

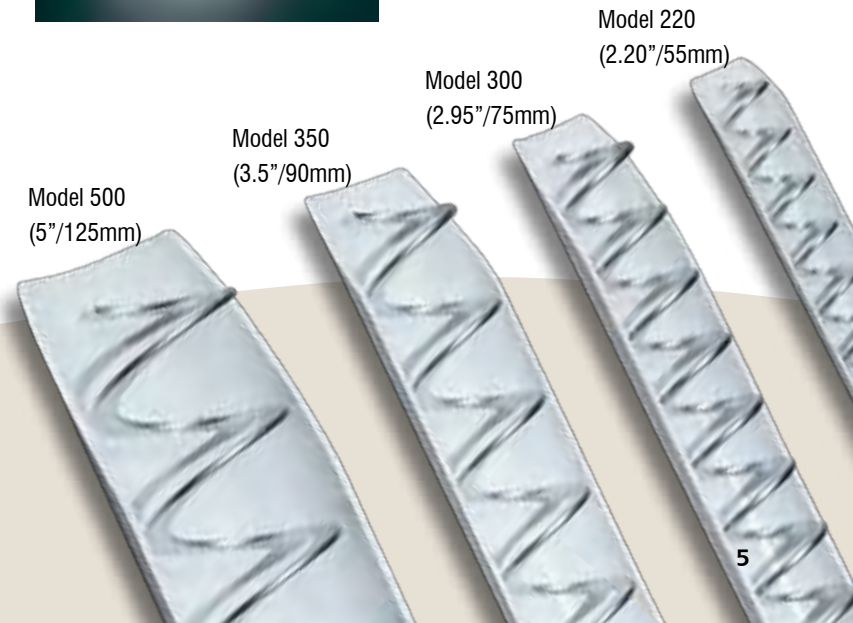
Cumberland offers five Flex-Flo™ models with capacities ranging from 15 lbs. to 220 lbs./minute (6.8kg to 99.8kg/min.). Whether it's ground feed, crumble feed, mash, high moisture corn, shelled corn or pellets, Cumberland has the equipment to handle it. For corn with up to 27% moisture and other hard to flow materials, Cumberland also offers a Flex-Flo™ High Roughage system which incorporates a special combination of a 3" (75mm) auger in a 3-1/2" (90mm) tube to reduce plugging.

Special Blend

Cumberland polyvinyl chloride (PVC) tubing is extruded and formed in our own facility, to exacting standards and under our own quality control. Blended PVC allows us to formulate the optimum compound for UV stabilization, strength and wear resistance.

Quality Auger

Cumberland augers are coiled in-house from high tensile steel. The wire used is flattened prior to hardening, providing for a more consistent, high quality product.



HH_20 Turkey Watering

The Recipe for Success is Easy.

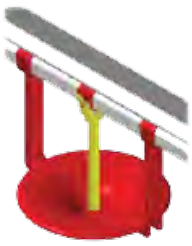
The EasyLine™ Nipple Drinking System is the breakthrough in turkey drinking technology that turkey growers have long been waiting for.

The principle of the pendulum.

At the heart of the system are the patented pendulum and turkey nipple. As the birds drink from the cup, their heads move the pendulum from side to side, thus triggering the nipple. The valve in the nipple opens and water flows through the pendulum into the cup.

EasyLine Cup - Brood/Hen Finishing

The EasyLine cup for brood and hen finishing is designed to deliver the proper amount of water to the birds from day one through every stage of their life. Water is delivered into the cup by means of the pendulum. The size of the oval cup provides easy access to the young poults and is designed to keep the litter dry during grow-out.



EasyLine Cup - Tom Finishing

The EasyLine cup for tom finishing is designed to handle the aggressive behavior of larger birds. An optimal supply of water is provided to the cup through the pendulum. The design of this cup is larger in diameter to help reduce the possibility of water spillage and improve litter conditions through out the building.

Pressure Regulator

Flush Breather Unit

Pressure Regulator

The pressure regulator has built-in flushing capabilities with the simple twist of a knob. Water pressure is easily adjusted with the regulator knob located underneath the unit. The clear flexible standpipe with float ball offers accurate and precise water pressure adjustment

Flush Breather Unit

The flush breather unit incorporates a clear flexible standpipe and float ball for establishing an accurate water pressure adjustment and also includes hose attachments for automatic flushing and cleaning.

The EasyLine System offers the following benefits over conventional watering systems:

- Fresher supply of water to the birds
- Better litter conditions
- Improved air quality
- Healthier birds
- Higher liveability rates

A Starter Ball is used for turkey poults to help them move the pendulum from side to side.

Recommended number of birds/nipple

Brooding: 30-40
Tom finishing: approx. 20
Hen finishing: 25-30

Versions of 10’ sections

Brooding or Hen Finishing: 3, 4, 5, and 6 drinkers/section

Versions of 10’ sections

Tom Finishing: 3, 4, and 5 drinkers/section

HH2O WATERING SYSTEM

Just Add Water.

Galvanized Fans

Lower Cost... ...Increase Profits

Cumberland ventilation systems are the perfect solution for more efficient, high performance, climate control in poultry production facilities. Our equipment has been field refined and industry proven to be extremely effective in reducing bird stress caused by overheated or poorly ventilated houses. Even if your building is well ventilated, inefficient equipment can blow healthy bird profits right out the window. If you're looking for a better return on your investment, look to Cumberland, your ventilation company.

54" Butterfly Fan

Butterfly Fan Features

A balance of performance, features, and value come with Cumberland's 50" & 54" Butterfly fans.

- Simple Butterfly style shutter structure improves fan performance and stability.
- Butterfly design eliminates the need for the traditional louver shutter, which are prone to dust buildup.
- During fan operation, the air forces the shutter doors open to provide full fan performance.
- Uses a magnetic shutter panel ring to alleviate movement of shutter doors while not in operation. In turn, the sealing area is reduced 50% or more compared to the traditional louver style shutter, resulting in lower heating cost during winter months.
- Critical stainless steel moving parts enhance stability, reliability and long lasting performance.
- Easy to assemble, flangeless cone panels

Front shutter doors offer protection from harsh weather conditions such as wind and moisture while the fan is not in use.

Arched Side Cone Panel

Cumberland's unique arched side cone panels allow you to mount fans closer together on field installations.

54" Butterfly Fan

CAT. 5

Slantwall Fans

Cumberland offers 36” and 50” galvanized steel belt drive and direct drive slantwall fans to efficiently and effectively maintain optimal environmental conditions. All galvanized fans are constructed of heavy gauge, G-90 grade galvanized steel and use totally enclosed “TEAO” motors designed for high efficiency and continuous duty cycles. Galvanized fan propellers are aerodynamically balanced for maximum air flow.

Cone Fans

Optional discharge cones can boosts fan output by as much as 10-15%, greatly increasing efficiency. Made of all galvanized steel, cones are available in easy to ship and assemble four-piece segments for 36” & 50” models.

Box Fans

Cumberland box fans feature heavy duty galvanized steel housings, grill guards, venturis and propellers. Offered in 36” (14” and 19” depth) or 50” (21” and 25” depth) diameters, these fans are available in either direct drive or belt drive models.

Drive Train

- Standard with all belt drive fans
- Large, cast iron, high quality greasable pillow block bearings to be used for longer life.
- Large Pulleys allow for longer belt life and smoother operation.
- Easy Access for belt removal.
- Automatic style belt tensioner to always ensure proper belt tension.

20” Cumberland Circulation Fan

- PVC Coated Guards
- Pre-Wired from Cumberland
- High Efficient 1/10 HP “TEAO” Motor
- Galvanized Prop for Whisper Operation
- Factory Assembled
- Multi-Application Hanging Bracket

CAT. 5 - Gale-Force Profits while Keeping Cost to a Simple Breeze.

Fiberglass Fans

Fiberglass Fans

Cumberland's fiberglass ventilation fans are available in 36" and 50" diameters, with and without cones. These fans are manufactured using a "Resin Transfer Molding" (RTM) process for a smooth finish on both interior and exterior surfaces of the fan housing. The motor mount and internal framework of the fan is constructed of corrosion resistant, heavy gauge aluminum and assembled with stainless steel hardware. The basic fan includes a heavy vinyl coated guard, shutter, all aluminum and stainless steel mounting hardware.

54" Competitor Series Fan

Cumberland's 54" Competitor Series fiberglass cone fan is the newest generation of ventilation equipment. The Competitor Series Fans were designed for poultry facilities that desire high capacity and efficiency. It comes standard with a high performance stainless steel propeller and PVC shutter. Upon request, housings can be shipped in a two-piece knockdown version, along with the four piece cone dramatically reducing freight cost. Other features include a 1.5 HP single phase motor or a 1.75 HP three phase motor, automatic belt tensioning system, and stainless steel hardware.

Drive Train

Drive shafts of 1" material allow for large, cast iron, greasable pillow block bearings to be used for longer life. Large pulleys allow for longer belt life and smoother operation.

Composite Propellers

Props are made of a tough composite fiberglass. Engineered with a true airfoil design, these propellers increase the overall efficiency of the fan providing optimum airflow effectiveness.

54" Fiberglass Belt Drive

The belt driven Competitor Series Fans offers an automatic belt tensioner that provides smooth operation and maintains constant belt tension. Features include easy access for belt removal, fiberglass housing and cone, motor base and mounting hardware. Like all Cumberland belt drive fiberglass fans, cast iron pulleys and greasable pillow block bearings are standard features.

Galvanized Fan Performance Values

					0.0 Static Pressure		.05 Static Pressure		.10 Static Pressure		BESS Lab
Model	**Dia.**	**Drive**	**Type**	**HP**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**Test #**
G50CBF16GA	50”	Belt	Butterfly	1.5	25238	27.4	23524	24	21807	20.8	4309
G50CBF16GAHE	50”	Belt	Butterfly	1.5	23915	30.2	22131	25.9	19937	22.1	4310
G50CBF16GAHF	50”	Belt	Butterfly	1.5	26913	24.2	25427	21.5	23603	18.9	4308
G54CBF16GA	54”	Belt	Butterfly	1.5	-	-	* 31800	22.6	29450	19.8	6218
G54CBF16GAE	54”	Belt	Butterfly	1.5	-	-	27500	25.9	24720	21.7	6223
G54CBF16GAU	54”	Belt	Butterfly	1.5	-	-	25000	28.8	21850	23.3	6222
CGSB36	36”	Belt	Slantwall	0.5	10578	19	9984	17.1	9379	15.5	98273
G50SL16GA	50”	Belt	Slantwall	1	22373	18.6	21042	17	19595	15.5	98283
CGSD36	36”	Direct	Slantwall	0.5	10417	17.5	9747	15.8	9105	14.2	94-0015
CGSD50	50”	Direct	Slantwall	1.25	20400	19.2	19300	17.5	18100	15.8	94328
CGBB3614	36”	Belt	Box	0.5	10171	19.6	9615	17.8	8969	15.8	00128
CGBB5021	50”	Belt	Box	1	20861	20.9	19486	19.1	18071	17.4	94276
CGBD3614	36”	Direct	Box	0.5	10950	19.3	10280	17.7	9560	16	94131
CGBD5021	50”	Direct	Box	1.25	20450	1909	19200	17.8	17910	15.9	94283
CGSBC36	36”	Belt	SW Cone	0.5	11341	20.9	10653	18.4	9898	16.4	98275
G50SCL16GA	50”	Belt	SW Cone	1	24700	22.5	23100	20	21500	17.7	3168
G54SCL16GA	54”	Belt	SW Cone	1.5	28900	27.1	26700	23.6	24300	20.4	-
G54SCL16GHF	54”	Belt	SW Cone	1.5	30856	24.0	29184	21.3	27185	18.8	-

Ultra High Efficient

* Performance values of this fan at .05” static pressure exceeds the BESS Lab test capabilities and were calculated through regression analysis of CFM and CFM/Watt measurements.

Fiberglass Fan Performance Values

					0.0 Static Pressure		.05 Static Pressure		.10 Static Pressure		BESS Lab
Model	**Dia.**	**Drive**	**Cone**	**HP**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**Test #**
APPB-36	36”	Belt	No	0.5	10952	16.1	10152	15.4	9339	14	-
APPB-36C	36”	Belt	Yes	0.5	11232	18.2	10905	17.5	10135	15.8	-
APPB-50	50”	Belt	No	1	21508	17.6	20160	15.7	18707	14.4	-
APPB-50C	50”	Belt	Yes	1	24282	23.4	22760	21	21129	19	01251
CS54C1-P	54”	Belt	Yes	1.75	32125	-	30044	20.2	28157	18.3	-

Ultra High Efficient

Fan Shutters

Available in a variety of sizes and materials, we have a shutter to fit your particular requirements be it low light, low maintenance or low cost. The true airfoil design of our shutter blades make them extremely effective allowing for very little performance loss. Simple to install and built to last a lifetime, Cumberland shutters can provide an easy and affordable means of controlling incoming light and building climate.

Cumberland Shutters

Cumberland PVC shutters come in white or black, and are very low maintenance and easy to clean. The black shutters are used in reduced lighting applications. Galvanized shutters have galvanized frames, with epoxy painted blades to reduce rusting, allow easy cleaning and provide additional protection. Aluminum shutters offer great durability in any environment. They have no parts to rust, and are practically maintenance free.

Galvanized Epoxy Painted | **Aluminum** | **PVC (White)** | **PVC (Black)**

Look to Cumberland for a Better Return on Your Investment.

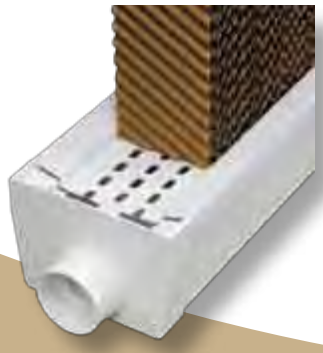
Evaporative Cooling Systems

Komfort Kooler

Komfort Kooler systems utilize the natural cooling effect of evaporation to combat seasonal dips in production caused by heat stress. Cumberland offers two different styles of Komfort Kooler. The Closed Top System is made of ultraviolet stabilized PVC, this system offers great durability and longevity for the poultry environment. In addition, Cumberland's Open Top System offers the grower easy access to manage and maintain their evaporative cooling system.

Water Troughs

Cumberland's pre-formed square trough serves as a 3 gallon per lineal foot (44.8 liters per meter) water reservoir. Constructed of corrosion proof, ultra-violet stabilized PVC components, the trough allows unevaporated water to be recirculated back to the holding tank. A perforated tray snaps to the trough to hold pads firmly in place. Injection molded end caps and couplers speed installation.



Closed Top Design

The Closed Top system is extruded from ultraviolet stabilized PVC for durability and ease of installation. The hinge-open cover and thumbscrews allows accessibility to spray bar and holds pads firmly in place. The spray bar bracket and water deflector insure pads are uniformly wet.

Open Top Design

Made of high quality stainless steel or aluminum, this system will give years of dependable operation under the harshest conditions. The Open Top design allows you to see the water jets and easily check water pressure. It also offers access to the spray bar for cleaning.

Features

- A roto-molded holding tank offers increased water storage capacity.
- Submersible pump keeps water levels consistent for efficient water delivery.
- Automatic float valve for matching water supply with water demand.
- Easy removal of pads for cleaning.
- Wide selection of cooling pads to choose from.
- Trough support brackets for suspending the system on the sidewall.
- Center Feed and Drain Kits for longer cooling systems.

Jet Pump Features

- The Jet Pump System provides an external self priming pump.
- Trough mounted float valve eliminates the need for an external tank.
- Our Jet Pump System is field proven, reliable and a cost effective way to deliver water to Evaporative Cooling Systems.

Tunnel Inlet Door Systems

Cumberland now offers a single door tunnel inlet option, along with our two door option. The single door comes fully assembled and is a rigid laminate foam panel that is ultra lightweight for easy installation. All brackets are galvanized for durability and long life. Cumberland tunnel inlets help to eliminate dead zone areas created by curtain sidewalls and curtain pockets.

Both Systems Feature:

- *Easy Insallation*
- *Lightweight Doors*
- *Energy Efficiency*
- *Low Maintenance*

Two Door Tunnel Inlet

White Durable PVC Doors

Lightweight rigid PVC doors allow for easy installation and can be operated with a curtain machine.

H-Channel & C-Channel

PVC H-Channel & C-Channel slide onto the PVC panels for proper seal.

Tight Seal

Static pressure pulls double stitched nylon curtain up against tunnel door to create an air tight seal.

Energy Savings

Will lower your energy cost 9 times the insulation value of conventional curtain material.

Spring tension bracket helps maintain proper seal when doors are closed.

Single Door Tunnel Inlet

Black Lightweight Doors

Lightweight rigid laminate foam panel doors allow for easy installation and can be operated with a curtain machine. Cumberland offers lightweight doors in two color options, black for dark out conditions and white when dark out conditions are not required. Doors available in 4', 5', & 6' heights.

Fully Assembled

Doors come fully assembled and can easily retrofit existing curtain tunnel inlets.

Tight Seal

A profiled rubber seal keeps form and provides an airtight seal.

Energy Savings

Lower energy costs! With an insulation value of R-8, tunnel doors are much better insulators versus conventional curtain inlets.

Profiled rubber seal keeps form and provides an airtight seal.

Curtain Machine

Curtain Controller & Auto Curtain

Choose between two different styles of Curtain Machines to maintain precise control of the environment in ventilated poultry houses. The most commonly used machine is the Curtain Controller and is available with pulleys or sprockets. The traditional Auto Curtain Machine comes with a grooved drum for cable operation or a sprocket for chain drive. Both models are available in a variety of curtain speeds and feature heavy-duty construction with galvanized housings.

Vent Doors

Cumberland's vent doors are used in poultry applications where transitional ventilation is required. All galvanized construction and simple to install, these doors are maintenance free and will provide optimum circulation for many years.

Auto Curtain

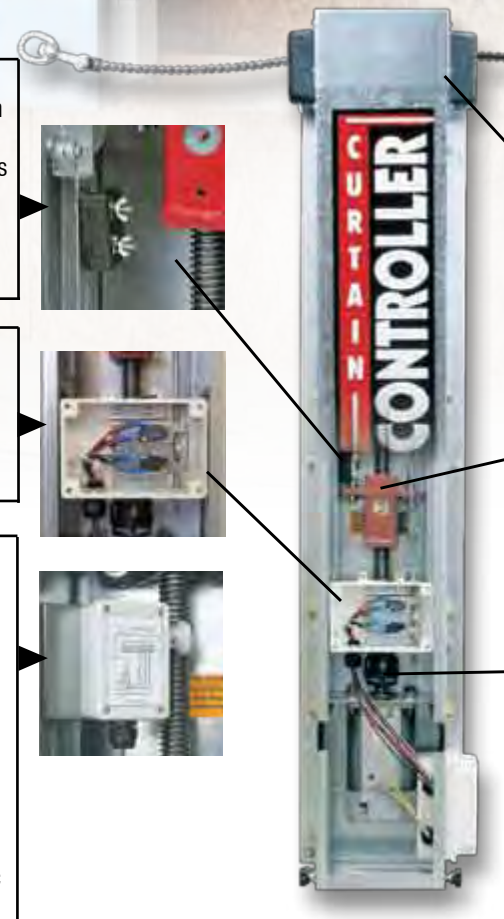
Cumberland's Auto Curtains operate by wenching a cable around a grooved drum controlled by a thermostat and timer. Optional version uses a sprocket and chain drive (instead of drum) turning a pipe that runs the length of the building. This sprocket version operates by pulling the curtain or door drop cords directly around the pipe eliminating the need for cable.

Auto Curtain

Adjustable latch out switches can be installed in multiple locations to energize and de-energize a variety of equipment.

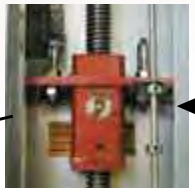
Isolated primary and secondary limit switches allow for back-up protection.

An optional shaft-mounted potentiometer provides an accurate and immediate signal to allow precise control of air inlets or curtains based on temperature, rather than static pressure.

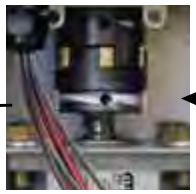


Curtain Controller

Solid construction and rust resistant materials make the sprocket controller a reliable workhorse year after year.



The drive block assembly features a removable nylon insert that decreases friction for smooth travel on the drive screw.



The Curtain Controller utilizes a threaded block and drive screw directly coupled to a direct drive gear motor.

Attic Vent Systems

Cumberland's Attic Vent System is precision engineered to extract solar heat from the attic space so it can be used as a valuable heat source. This unique and innovative design is cost effective, durable and easy to install.

Operation

Vents are operated with a linear actuator or curtain machine and are controlled by your ventilation controller.

Unique Door Design

Exceptional air mixing due to the curved door profile which provides proper air velocity directing warm air from the attic into the house.

House Conditions

Significant benefits to Cumberland's Attic Vents are drier litter and lower ammonia concentration levels, thus providing a better in house environment for the bird.

Fuel Savings

Mixing warm air from the attic with house air during minimum ventilation reduces fuel consumption as compared to using cold air through sidewall inlets. Fuel savings can vary depending on management, house construction and climate.

Retrofit Friendly

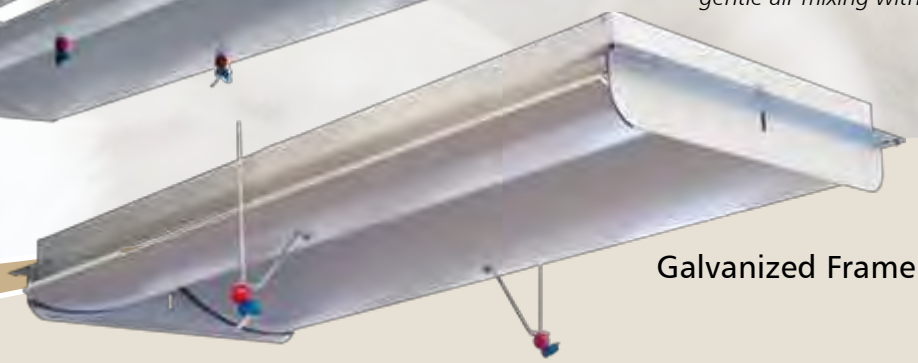
The Attic Vent System is designed to be retrofit friendly in most drop ceiling poultry houses.

Specifications:

Part Number	Description	Full Open Airflow @ 0.10 SP	Horizontal Airflow @ 0.10 SP	Framed Opening
ACI-2500P2	All Plastic Actuated Ceiling Inlet	2500 CFM	1700 CFM	19" W x 27" L
ACI-2500GP2	Actuated Ceiling Inlet - Galvanized Frame	2500 CFM	1700CFM	21.5" W x 27" L
ACI-4000P2	All Plastic Actuated Ceiling Inlet	4000 CFM	2500 CFM	19" W x 46.5" L
ACI-4000GP2	Actuated Ceiling Inlet - Galvanized Frame	4000 CFM	2500 CFM	21.5" W x 46.5" L

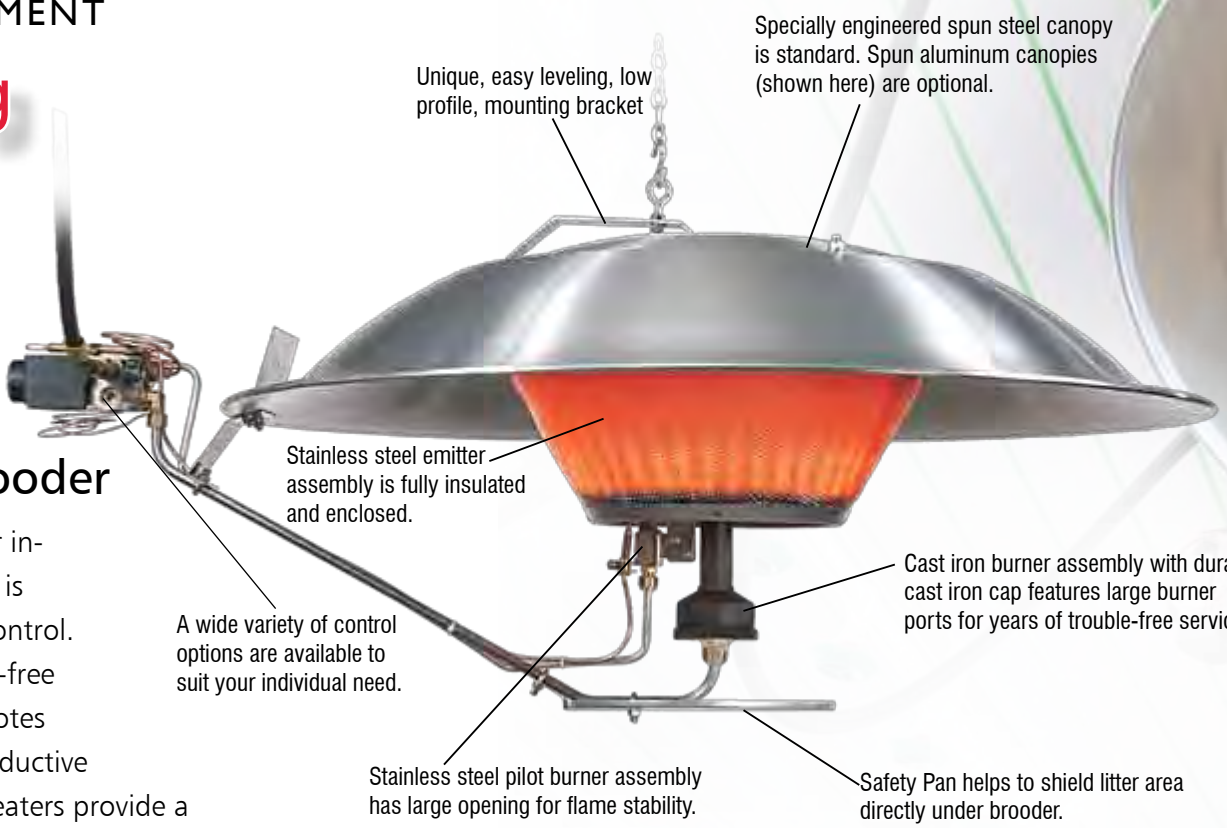
Curved Door Profile: *Curved door design directs air along the ceiling toward the house walls for gentle air mixing without downdrafts on the birds.*

PVC Plastic Frame



Galvanized Frame

Heating


Unique, easy leveling, low profile, mounting bracket
Specially engineered spun steel canopy is standard. Spun aluminum canopies (shown here) are optional.
Stainless steel emitter assembly is fully insulated and enclosed.
Cast iron burner assembly with durable cast iron cap features large burner ports for years of trouble-free service.
A wide variety of control options are available to suit your individual need.
Stainless steel pilot burner assembly has large opening for flame stability.
Safety Pan helps to shield litter area directly under brooder.

Radiant Brooder

Maintaining proper in-house temperature is critical in climate control. A consistent, stress-free environment promotes healthier, more productive animals. Radiant heaters provide a consistent, clean-burning and fuel-efficient source of warmth for all types of poultry houses. With near 100% efficiency, and liquid propane or natural gas compatibility, the thermostat controlled Radiant Brooder uses less energy to yield greater BTU's for your money. Easy to maintain, corrosion resistant and simple to install, Cumberland brooders are the complete solution for your poultry house heating.

Cumberland Radiant Brooder Specifications

Input Rating (LP or NAT)		40,000 BTU/HR	11.72 kw
Gas Supply Pressure	LP Natural	12-14" w.c. 6-14" w.c.	30-35mbar 15-35 mbar
Mounting Height		60-72"	1520-1830mm
Brooder Spacing		25-40'	7.6-12.2 m
Brooder Size	Canopy Diameter	35"	890 mm
Weight		23 lbs.	10.5 kg
Ventilation Required	Per Brooder	200 CFM	340 m^3/hr
Gas Consumption	LP Natural	.43 GPH .40 THERM	4.63 l/hr 42.2 MJ/hr
Minimum Clearance to Combustibles	Side Top Below	36" 18" 48"	915 mm 460 mm 1220 mm

Control Options

Zone Control Radiant Brooder
For single or multi-zone installations using central or multiple thermostats. This 24 volt AC zone type control can also operate on 12 volt DC as backup. The gas valve includes a built-in regulator. A 24 volt power supply is required. Brooder can be operated by 24 volt thermostat, computer or environmental controller. 100% gas safety shut-off valve.

Modulating Radiant Brooder
A modulating type HI/LO control with integral thermostat. No electrical supply is needed. Upon call for heat, valve will open from pilot to low fire and modulate between low and high fire as necessary to maintain desired temperature setting. When thermostat has been satisfied, valve will modulate down to low fire and then drop to pilot. 100% gas safety shut-off valve.

Non-Modulating Radiant Brooder
An individual, non-electric, fully automatic On/Off control with integral thermostat which operates on mil-livolts generated by the pilot — no electrical supply needed. Integral thermostat features a wide temperature range for easy adjustment. 100% gas safety shut-off valve.

Direct Spark Ignition
A 24 VAC direct spark ignition system. No pilot light saves fuel and maintenance costs.

A consistent, clean burning & fuel efficient source of heat.

Jet Brooder

Cumberland's Jet Brooder combines just the right mixture of gas and air for optimal burn and excellent heat coverage. This system accommodates liquid propane or natural gas for a low cost, and extremely efficient heating alternative. A one-piece burner and removable pilot cover allow easy maintenance for years of reliable operation.

S.I.T. Gas Control Valve

Modulating (21,000 - 35,000 BTU)
Non-Modulating (30,000 - 35,000 BTU)

Each Jet Brooder with an S.I.T. controller has its own adjustable thermostat (with a range of 70˚-115˚ in 7˚ increments) for optimal control and consistent temperatures. S.I.T. controller conversion between non-modulating and modulating operation is simple, requiring only the change of a screw. The S.I.T. controller features a safety shut off and accommodates LP or natural gas.

Zone Control Valve

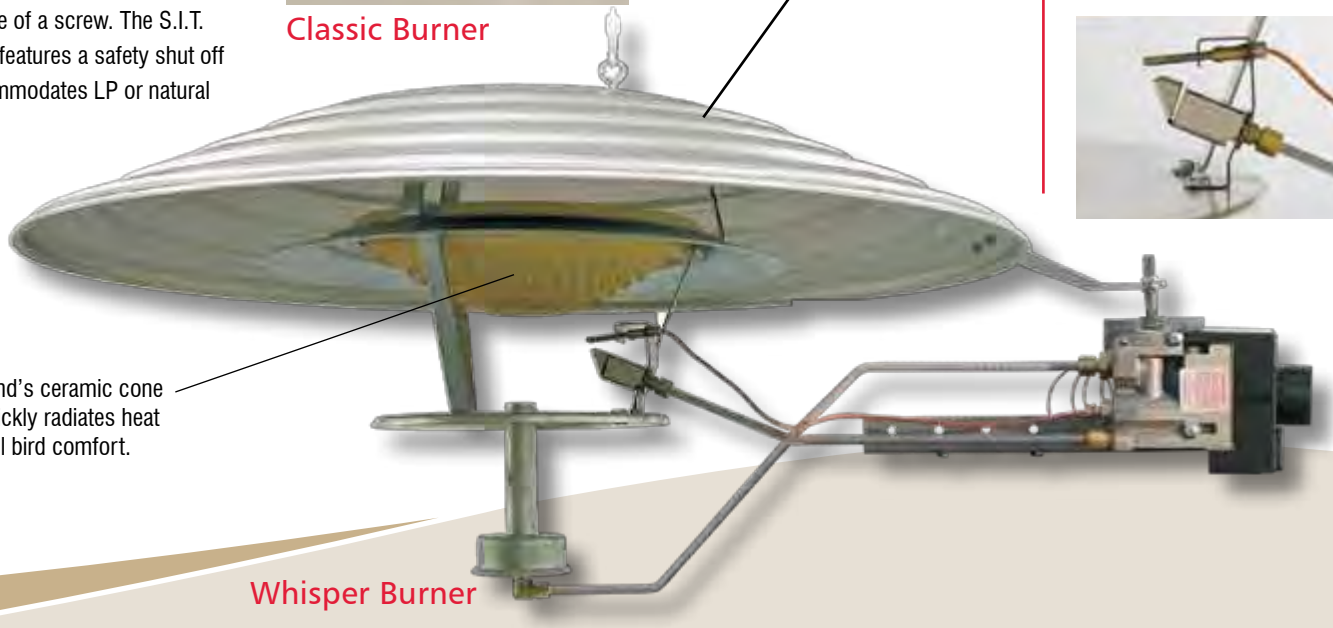
Cumberland's zone control valve (30,000 - 35,000 BTU) allows you to manage your whole system with a single temperature adjustment.

Zone Control Panel

The zone control panel allows you to control up to 30 brooders from one place. It also features a battery backup, four fused zone connections and one thermostat.

Classic Burner

Choose between a lighter, more reflective aluminum canopy or a durable, more economical galvanized steel canopy.



Cumberland's ceramic cone design quickly radiates heat for optimal bird comfort.

Whisper Burner

Thermostat

Cumberland's durable thermostat ensure accurate, automatic operation and are moveable for your convenience.

Lo-Profile Slide Adjust

Quick and easy low-profile slide adjustment hanging system provides easy leveling.

Easy Cleaning Pilot

The stainless steel pilot assembly is equipped with easy to remove pilot cover.

Heating

Super-Saver XL

The Super-Saver XL heating line is a line of direct fired heaters that have model variations for both inside suspension hanging and outside mounting. The inside mount model is a gas circulating heater that's dependability and rugged construction make it the ideal unit for a poultry environment.

The outside mount models are forced air heaters that come complete with all relevant brackets and accessories for installation. Its superior combustion is provided by clean, fresh outside air which insures healthy, safe heat for your poultry needs. All models are available with options for natural gas or liquid propane.

The Advantage

- models available from 40k to all new 250k btu's
- hot surface or all new direct spark ignition options
- high temp aluminized steel burn chamber
- side swing door for easy access and maintenance
- diagnostic lights for troubleshooting ease
- standard adjustable "y" heat deflector
- 1/3 hp totally enclosed thermally protected motor with sealed bearings
- 1/10 hp on all 40,000 to 75,000 btu units
- standard 1/2" gas cock installed at gas valve
- back-up safety sail switch
- high limit safety switch (manual reset)
- on/off toggle switch
- available in 120v and 240v models
- stainless steel, high altitude, and CE certified models available

225,000 BTU Inside Mount Model

225,000 BTU Outside Mount Model

Control Features

"Service-Saver" enclosed electrical control unit sealed from debris like dust and moisture makes the unit easily field serviceable by the grower. Unit is accessible through side swinging door.

Easy Access Door

The side swinging door design gives easy access to internal components like the "Super-Saver"control unit and blower motor, making it one of the most easily serviceable heaters on the market.

Electronic HSI Ignition

HSI Electronic ignition is standard on all Super-Saver heater models. Components are neatly arranged with ample room for servicing and cleaning. The heating chamber is made of high temp aluminized steel for superior rust protection. The cast iron burner is enamel dipped to eliminate dust adhesion and rust. The air intake surround increase combustion and heat change efficiency.

Warning: Do not use this heater in an improperly ventilated area or where liquids with flammable vapors are stored or used.

Radiant Tube Heat

Allowing heat to be directed straight to the birds allows them to find their own comfort zone either closer to or farther away from the heater according to their preference. This obviously reduces stress and allows for better bird performance.

Heavy Duty control and burner unit, using outside air for combustion

The unique two stage burner adapts to varying conditions providing a more consistent comfort zone with fewer off cycles. Units operate at low fire the majority of the time for improved energy efficiency. High fire mode provides reserve heating capability when conditions require.

Infra-Red Heat

Getting heat where you want it can be difficult, one way to accomplish this, is to use Cumberland Radiant Tube Heaters. Infra-red heat emulates the true efficiency of the sun. It generates energy that is converted into heat when absorbed by objects like floors and animals. The energy is then re-radiated to warm the surrounding area by convection. This is the most efficient method of heating many poultry facilities.

Cumberland's AG-1 or AG-2 Heater Features

- 16ga. aluminized combustion chamber - (1st 10')
- Turbulator baffle for maximum efficiency
- 4" overlapping slip-fit tube connections
- High efficiency polished aluminum reflectors
- Two mounting options: center or side mount
- Solid state silicon carbide ignition system
- Unique anti-rattle reflector springs
- 24" PVC coated stainless steel flex connector
- Ignitor changeable without tools
- Bolted tube clamps
- 2 x 4 electrical junction box
- Air inlet collar standard
- 100% enclosed components
- 1/2" gas cock provided
- Reflector end caps

Patented Two-Stage Burner

- Two-Stage Technology
- Fuel savings
- Faster heat loss recoveries
- Improved comfort levels
- Reduction in equipment cycles
- Design protection benefits.

Intertek

The Super-Saver and Tube Heaters are available in CE Certified models.

PRO VISION ENVIRONMENTAL CONTROLLER

So easy you'll manage like a Pro!

✓Easy to Install and Setup!

Pro Vision is well designed and thought out, saving installation time and making service easy. The new enclosure and circuit board mounting system allows plenty of space for wiring and room for expansion. More grower friendly features include:

- Easy step by step setup mode
- Large keypad for easy adjustment
- USB Key
- Personal computer setup software
- Optional Input Board for Additional Temperature Probe

✓Easy to Use!

- Large screen with friendly style interface that allows the user to instinctively navigate controller screens minimizing learning process time.
- Access any menu with minimal keystrokes
- 10 hot keys give you quick access to main settings.
- Menus can easily switch from English to Spanish.
- High resolution display enables easy to read conditions.

✓Easy to Service!

- Outstanding high voltage surge protection
- Pull out wire terminals
- Built-in diagnostic software
- Optional AMP reading relays

USB Key makes Program Changes and Updates Easy.

The most "grower friendly" controller on the market.

Main Menu

Light Program

Set Point

Current Conditions

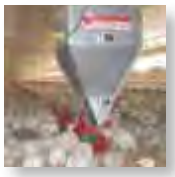
Attic Vent Programs

8 Outputs for Water Line Flushing

Breeder Mode Function

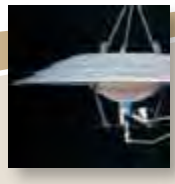
Turkey Mode Function

2 Tunnel Door Controls



Up to 4 Feeder Run Time Inputs

Up to 10 Programs for Temperature Control



Up to 16 Heaters - 32 Using Hi/Low Fire Option

Additional Features

- Stir fan mode based on room temp or on minimum ventilation
- Layer Mode Function
- 8 time clocks for water and feed supply
- 22 tunnel fan outputs
- 6 Inputs for monitoring feed run time/ water meters
- Outside temperature sensor
- 8 inside temperature sensors
- Light output adjustable with up to 9 programs
- Alarm with outside temperature compensation
- Backup thermostat setting change warning
- Empty zone and clean mode settings
- Monitor flock age & mortality count
- Hour meter for feeder & heater
- Detailed alarm history
- Wall vent output
- 5 fan outputs
- Water spill alarm
- History based on bird age
- 128 maximum relay capacity
- Up to 32 inside temperature probes

Integrated Management Systems

Cumberland INTEGRA
INTEGRATED MANAGEMENT SYSTEM

INTEGRA Controls

Precise control of the temperature, airflow, bird weight, water consumption, feed inventory and lighting is a must for achieving top profits for growers. Cumberland's Integra line of equipment combines all of these elements together into one cost effective, easy to operate management system. This fully integrated management system allows access of real-time data to ventilation, bird weight, water consumption, feed inventory and lighting for the entire site from a single location. Data can be accessed from an on-site PC or remotely via modem.

Expert 64+ Controller

- 8 Hi-Lo Heat Zones
- 16 Tunnel Vent Fans
- 5 Minimum Vent Fans
- 2 Cooling Stages with Ramping
- Change ventilation with 5 different programs
- Up to 64 relay outputs with a second relay panel
- Up to 24 different times on the time clock where you can assign different relays to each clock
- Upload/Download: Program one control on a chip and easily upload all other controls on the site
- Mist ramping feature: As heat increases in the building so will your on time
- Light program: Ramping light program with variable module option (LD-7000)
- Day and night settings for minimum ventilation: Capability of having a different minimum ventilation timer for day and night
- Mortality: Capability of entering daily mortality into the controller. Full mortality history of the current flock available

Expert HS Controller

EXPERT HS Ventilation System

- Large screen allows you to see all relevant information at a glance
- Easy navigation keys let you move quickly to any menu
- Change display to Spanish with the touch of a button
- Copy and paste features from program to program
- Transfer control settings from one control to another with the upload and download feature
- Ventilation strategy based on static pressure and temperature
- Control the temperature with five different ventilation programs
- Day / Night settings allow for minimum ventilation
- Partial House brooding setting
- Minimum temperature curve allows the fan "On Time" to increase automatically following bird age
- Allow multiple users their own password
- Alarm relay output with surge protection
- Simulate temperature changes in Test Mode to verify the HS control performance
- Alarm relay output with surge protection
- I-Box compatible for advanced poultry management

Expert-WW Controller

- Ventilation Based on Static Pressure and Temperature
- Upload/Download Chip for Easy Transfer of Settings
- Two Timed Curtain Output for Tunnel Ventilation
- Energy Saving Features
- Manual Override Switches, Indicator Lights and Relays for Each Stage

Relay Panel

- 40 Output Relay Panel
- On/Off/Auto Relay Switches
- Open/Off/Close Switches for Curtain Relays
- Clear Protective Door
- LED on lights
- Only 5 wires between the Controller and the Relay Panel

Sundial Light Dimmers

Programmable Light Control

- LCD Display
- 10 Light Programs
- 6 Sunrise/ Sunset Cycles
- Light Peaks
- Automatic/Manual Mode
- Computer Control
- Backup Battery
- Password Protection

Power Module

- Light intensity can be different in zone 1 & 2 or identical.
- Two resistive loads of 3500W each.
- Manual Mode: Can be used as a stand alone unit.
- Auto Mode: Light intensity in the selected zone(s) is automatically adjusted by the master controller. Communication between both controls is established by using a 0-10V signal.
- Pre-programmed curve for incandescent lights.
- Compatible with Expert32ES & Expert64+

Alarm Systems

Alarm Accessories

AA-24Ext
Agri Alert 2400 Extension Card
- 8 Zone (Up to 2 per AA-2400)

AA-96Ext
Agri Alert 9600 Extension Card
- 8 Zone (Up to 2 per AA-9600)

AA-Battery
Agri Alert Rechargeable Battery
- 7A/H (AA-9600 and AA-2400)

AA-24Power
- Agri Alert 800/2400, Power Pack

AA-96Power
- Agri Alert 9600, Power Pack

AA-800EZ
Agri Alert 800EZ Alarm System -
- Alarm for 8 Zones
- 8 programmable Numbers
- Maximum Surge Protection

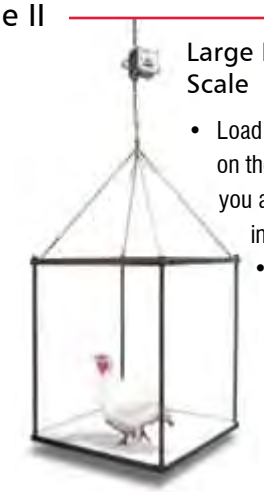
AA-2400
- Agri Alert 2400 Alarm System -
- Expandable 8 to 24 Zones
- Alarm History
- Outdoor Temp. Compensation
- Dial-Out & Monitoring System

AA-9600
- Agri Alert 9600 Alarm System -
- Expandable 8 to 24 Zones
- 8-Zone Extension Box (up to 6)
- Agnet Windows Software
- Sophisticated Lightning Protection

Featherweight Bird Scale II

- Weigh your birds 24 hours a day
- Give you accurate data
- Help you reduce mortality
- Help you reach your desired TARGET weight
- Featherweight can have up to 4 platforms - 2 in each house. Each platform has an independent reading. Any platform can be assigned to house 1 or house 2.

Large Platform Scale



- Load cells are not on the floor, giving you a precise reading every time.
- Easy to use
- PC Compatible
- Push-button access to information.
- Gives important daily information:
  - Average weight
  - Number of weight
  - Standard deviation
  - Uniformity and daily gain

Controller Accessories

Expert-SB
Back-up Safety Relay Box - up to eight (8) stages. Back-up Safety Relay Box does not include thermostats.

WMC-Meter
Water Meter F/Water Monitoring Controls

Probe-Hum
Humidity Sensor Probe

Static Pressure Transmitter
Static Pressure Transmitter

Environment • Water • Feed Systems • Video Surveillance • Feed Inventory & Consumption • Bird Weight •
I-BOX 360
INFORMATION IS POWER
For more details refer to the I-Box literature.

Control Your Environment. . .
Control Your Costs.

Why Choose Cumberland for your Poultry Needs?

Cumberland is a member of the **GSI Group, LLC** and has been in the poultry business for over twenty years. Our corporate facility located in Assumption, IL houses over 1,000 employees and has over one million square feet under roof. Also, located within a seventy-five mile radius of our corporate office is another five satellite manufacturing facilities. Supporting our international sales, we have two manufacturing facilities located in Malaysia and Brazil, with offices and warehouses located around the world. In 2009, we welcomed **Hired Hand** as a new member of the GSI Group, LLC. This newly combined organization provides customers the best of both companies with greater product breadth and increased service capabilities. You can be sure Cumberland will continue to grow and be here to service your current and **future** poultry needs. With Cumberland's complete line of cutting edge products, great customer service, and **commitment to excellence**, the choice is simple...*choose* ***Cumberland***.

Cumberland®
Your Source for Innovative Solutions

HIRED-HAND™

members of
GSI GROUP
GSI®

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